



Frequently Asked Questions on Aquaculture & The National Offshore Aquaculture Act of 2007

Aquaculture

Q. What is aquaculture?

The National Oceanic and Atmospheric Administration (NOAA), the lead federal agency for marine aquaculture policy, defines aquaculture as the propagation and rearing of aquatic organisms in controlled or selected environments for any commercial, recreational or public purpose. Aquaculture, which is commonly referred to as fish and shellfish farming, can take place in raceways, tanks or ponds onshore, in coastal waters, and in the open ocean. Different kinds of aquaculture require different equipment, species, techniques and expertise.

Q. Why is aquaculture a significant issue for the United States?

The top three reasons are – the growing global demand for seafood, our seafood trade deficit (now at over \$8 billion annually), and the need for a safe, reliable seafood supply in this country.

Offshore Aquaculture

Q. What does the term “offshore” mean?

“Offshore” refers to the federally managed area of the ocean off the coasts of the United States and its territories. This begins where state jurisdiction ends (for most states, that’s 3 nautical miles) and extends all the way out to the limit of the U.S. Exclusive Economic Zone (200 nautical miles in most places). The U.S. Exclusive Economic Zone covers an area equal to about 3.4 million square miles.

Q. What’s the difference between offshore aquaculture and other types of aquaculture?

What distinguishes offshore aquaculture from other forms of marine aquaculture is the location in open ocean waters that are exposed to wind and waves, not sheltered in bays or coves closer to shore.

Q. Why focus on the offshore?

The offshore area of the ocean has great potential for sustainable aquaculture of all kinds. It is a desirable location for two main reasons. First, there are fewer competing uses further from shore. Second, the deeper water and stronger water flows make it a desirable location for environmental reasons.

Q. I understand that the Administration has developed a new National Offshore Aquaculture Act. What's the purpose of the Act?

The purpose of the 2007 National Offshore Aquaculture Act is to create a regulatory framework that allows for safe and sustainable aquaculture operations in U.S. federal waters, also known as the Exclusive Economic Zone. The intent of the Act is to complement rather than supersede existing resource management authorities, so it specifically provides for coordination and consultation with other federal agencies, Fishery Management Councils, and coastal states. The Act also includes requirements to ensure that offshore aquaculture proceeds in an environmentally responsible manner that is consistent with stated policy to protect wild stocks and the quality of marine ecosystems and is compatible with other uses of the marine environment.

Q. What would the 2007 National Offshore Aquaculture Act change?

If enacted, the 2007 National Offshore Aquaculture Act would establish a clear regulatory framework for aquaculture operations in federal waters. The Act would require the Secretary of Commerce to work with other federal agencies to develop and implement a coordinated permitting process for offshore aquaculture. The Act would also authorize the Secretary of Commerce to issue offshore aquaculture permits and requires the Secretary to establish environmental requirements. In addition, the Act would exempt permitted offshore aquaculture from fishing regulations that restrict size, season and harvest methods, authorize a research and development program for all types of marine aquaculture, and authorize funding to carry out the Act and provide for enforcement of the Act.

Q. Why is the 2007 National Offshore Aquaculture Act moving forward now?

Two reasons - momentum and demand. There is strong interest from a range of interests, including the President, in establishing a clear regulatory framework for aquaculture in federal waters. NOAA has been working with industry and other interested stakeholders on iterations of this legislation for over 10 years. In 2004, the need for a regulatory framework for federal waters was highlighted in the report of the U.S. Commission on Ocean Policy, and in the Administration's response to the recommendations of the Commission, the President's *U.S. Ocean Action Plan*.

Q. Why is the 2007 National Offshore Aquaculture Act necessary?

Currently, there is no clear federal authority for the permitting of offshore aquaculture in federal waters. The 2007 National Offshore Aquaculture Act addresses this problem. If enacted, the legislation will establish the legal framework regarding permits, enforcement, and monitoring of aquaculture in federal waters.

Implementation of the Act

Q. How does the new legislation address environmental concerns, or state involvement?

The 2007 bill specifically addresses concerns regarding environmental requirements, the role of states, permits, and research. More details on these changes are available on the website at: www.aquaculture.noaa.gov. Issue-specific concerns about offshore aquaculture will be addressed in the regulatory design process once Congress enacts the proposed legislation. The regulatory design process will include a strong role for states, fishery management councils, industry, conservation organizations and other interested stakeholders and will focus on specific issues of concern to these groups and others.

Q. How will the regulatory design process work?

There are formal rulemaking procedures that all federal agencies follow in order to implement legislation that is enacted by the Congress and signed into law by the President. The federal agency with the lead on marine aquaculture, the National Oceanic and Atmospheric Administration (NOAA), will undertake rulemaking for the National Offshore Aquaculture Act of 2007 once it is signed into law. In general, the process involves public notices, solicitation of public input, and public meetings. Announcements are published in the Federal Register. The overall process should take about two years, including the development and publication of draft rules, a review period, and publication of final rules. During this time period, NOAA will also undertake a programmatic Environmental Impact Statement in fulfillment of the agency's responsibilities under the National Environmental Policy Act (NEPA). No permits will be issued until the regulatory design process is completed.

Q. Is offshore aquaculture already underway in the United States?

No, right now there are no aquaculture operations in U.S. federal waters. However, there are several open ocean demonstration and commercial operations in states waters in Hawaii, Puerto Rico, and New Hampshire. A major barrier to the development of offshore aquaculture in the United States is regulatory uncertainty. It's just not possible to make rational business decisions unless you know what the rules are. And although certain laws already apply to an offshore aquaculture operation, they were all written before offshore aquaculture technology existed. They don't address all of the issues that need to be addressed in any comprehensive way and there is no clear mechanism for the permitting of marine aquaculture in Federal waters. That's why the Administration asked the National Oceanic and Atmospheric Administration (NOAA) to develop legislation that would authorize the Department of Commerce to establish an overall regulatory structure for offshore aquaculture in the United States. That legislation is the 2007 National Offshore Aquaculture Act.

Q. Why is the Administration enabling development of offshore aquaculture? Why can't we just let foreign countries develop aquaculture?

We need a vibrant commercial aquaculture industry right here in the United States, because aquaculture can be an effective option to reduce our dependence on seafood imports, provide jobs for economically depressed coastal communities, and increase regional food supply and security. The reality of today's global seafood market is that seafood demand exceeds the supply from wild fisheries, and we are already getting a lot of our seafood from aquaculture – much of it imported. In the future, the gap between seafood demand and wild fisheries production is projected to widen, and will need to be filled through even greater aquaculture production. The only real question is whether that aquaculture production will come from U.S. production, or from imports.

Q. Why are the Department of Commerce and NOAA getting more involved in domestic aquaculture?

The realities of seafood supply and demand call for more attention to this issue by the federal government. Aquaculture is the fastest growing form of food production in the world and is something that the United States government cannot ignore. The National Oceanic and Atmospheric Administration (NOAA), the lead federal agency for marine aquaculture policy, has been researching various forms of marine aquaculture for over 30 years.

Q. What happened to the 2005 version of the act?

The National Offshore Aquaculture Act of 2005 was presented to the 109th Congress in June 2005, and subsequently introduced in the Senate as S. 1195. Senate hearings on the 2005 version of the act were held in April and June 2006, but the session ended before any action was taken on the bill.

Q. How is the 2007 National Offshore Aquaculture Act different from the 2005 act?

The purpose of the 2007 National Offshore Aquaculture Act is the same as the 2005 version of the act - create a regulatory framework that allows for safe and sustainable aquaculture operations in U.S. federal waters. However, in response to feedback provided by a variety of stakeholders, the 2007 bill was revised in four specific areas – environmental requirements, permits, the role of the states, and research. The Administration believes these revisions strengthen the bill. More details on these changes are available on the website at: www.aquaculture.noaa.gov.

Aquaculture in the United States

Q. Is there an aquaculture industry in the United States?

Yes, the commercial U.S. aquaculture industry is currently a \$1 billion a year industry. There is a basic distinction between the species grown in freshwater and those grown in marine waters. Today, the U.S. aquaculture industry is dominated by the culture of freshwater species, such as catfish and trout. The primary marine species cultured in the U.S. are shellfish – including oysters, clams, and mussels. Other marine species include finfish, ornamental fish, and algae (aquatic plants, seaweed).

Q. Why do we need more aquaculture - fish and shellfish farming - in the United States?

Demand for seafood is on the rise in the United States and abroad and it's projected to keep growing. With capture fisheries stable or static, any increase in seafood supply will most likely come from aquaculture, either imported or domestic. What most people don't know is that currently over 80% of the seafood that Americans consume is imported, and at least half of that is farmed seafood. Additional domestic aquaculture can be an effective option to reduce dependence on seafood imports, provide jobs for economically depressed coastal communities, and increase regional food supply and security. There is also a continuing need to replenish and restore wild populations of marine shellfish and finfish in the United States through hatchery programs, which also use aquaculture techniques to hatch and grow fish and shellfish for release to the wild.

Q. Is farmed seafood safe to eat?

Yes, seafood – both farmed and wild – is safe to eat. The advantages of a seafood-rich diet have been scientifically verified by medical research that concludes eating more fish and shellfish will lead to a healthier, smarter and longer-lived U.S. population. In fact, seafood has been scientifically shown to fight cardiovascular disease, cancer, Alzheimer's and many other major illnesses. It is clear, based on this mounting body of research, that the health benefits of eating seafood far outweigh any risk due to trace level contaminant exposure. Seafood does not cause diseases, it fights them. The USDA tells Americans to eat two meals of seafood per week for a heart-healthy diet, but that message often gets overshadowed by stories in the popular press about mercury and PCB contamination of seafood. Unfortunately, this confusion leads some people to avoid seafood altogether, which puts them at greater risk for health problems. It is important for the public to understand that the levels of persistent environmental chemicals found in fish and shellfish are significantly lower than FDA standards, and lower than levels found in many other popular foods.

Environmental Requirements

Q. Has the government considered potential environmental issues associated with offshore operations -- such as impacts of escapes, excess feed, water pollution, etc.? What will the government do to ensure offshore aquaculture operations do not pollute the environment?

Yes, the National Oceanic and Atmospheric Administration (NOAA), the lead federal agency for marine aquaculture policy, has considered these and other types of environmental impacts, and is satisfied that the 2007 Act requires appropriate measures to avoid, minimize, or mitigate unacceptable impacts. As added insurance, the bill also provides authority to take emergency actions to address unanticipated impacts in a timely manner. Many types of impacts can be avoided or minimized through good siting and the use of best management practices, commonly known as BMPs, in the aquaculture operation. In terms of environmental impacts, NOAA and others have already done a lot of work to answer many of the environmental questions related to marine aquaculture, and more work will need to be done. NOAA has strong stewardship responsibilities, so the agency will implement this law in a way that does not jeopardize the conservation of marine resources.

Q. How is NOAA addressing the need for environmental standards for offshore aquaculture?

The 2007 National Offshore Aquaculture Act includes specific requirements to ensure that offshore aquaculture proceeds in an environmentally responsible manner that is consistent with stated policy to protect wild stocks and the quality of marine ecosystems and is compatible with other uses of the marine environment. The Administration believes these requirements strengthen the bill. Specific revisions to the 2007 Act are available online at www.aquaculture.noaa.gov.

Role of the States and Public Participation

Q. Does the aquaculture bill include an opportunity for state consultation?

Yes, the bill requires coordination with states as part of the permit process and consultations with states in establishing environmental requirements. Furthermore, it does not supersede any other laws, such as the *Coastal Zone Management Act*, that include a role for states with respect to activities in federal offshore waters. Aquaculture facilities also will require support facilities on land, the construction and operation of which will be subject to state and local approvals. The bill specifically includes a provision on the need to consult with state agencies as part of the coordinated and streamlined permit process for offshore aquaculture, so states will have a say in decisions on offshore aquaculture permits as well. Specific revisions to the 2007 Act are available online at www.aquaculture.noaa.gov.

Q. Is there a role for the public?

Yes, the public has a strong role to play in this national effort to expand aquaculture production and in shaping and implementation of the 2007 National Offshore Aquaculture Act. For example, the regulatory design process will include a strong role for states, fishery management councils, industry, conservation organizations and other interested stakeholders and will focus on specific issues of concern to these groups and others.

Oil/Gas Platforms

Q. In 2005, there was some question about the connection between the offshore act and decommissioned oil and gas platforms, has that changed?

No, neither the 2005 version nor the new 2007 National Offshore Aquaculture Act provide for the use of oil and gas platforms beyond what is required under the terms of an *Outer Continental Shelf Lands Act* lease. The potential use of decommissioned platforms was covered in the news media in 2005 and 2006 because of efforts on the part of states and private research facilities to study the feasibility of using decommissioned platforms as part of an infrastructure for offshore aquaculture. However, the use of these platforms introduces a difficult set of liability issues, which this legislation is not designed to address.

Permitting

Q. If a bill is enacted, will NOAA be acting alone in issuing permits?

No, the agency will not be acting alone in issuing permits. While NOAA will issue the aquaculture permits, the 2007 National Offshore Aquaculture Act specifically requires a public process of consultations with states, federal agencies, tribes, and the public in offshore aquaculture permit decisions. Also, other federal agencies will continue to issue permits under other applicable laws. NOAA will coordinate the permit review process among other agencies and facilitate input from stakeholders.

Q. Will the permitted operations be subject to any other environmental laws?

Yes, definitely. The 2007 National Offshore Aquaculture Act does not pre-empt or supersede any existing laws. So the offshore aquaculture operation will remain subject to the *Endangered Species Act*, the *Marine Mammal Protection Act*, and all other applicable laws and regulations.

Q. Will an offshore aquaculture company be allowed to take fish from the wild to be raised in captivity?

The 2007 National Offshore Aquaculture Act does not allow offshore aquaculture permit holders to take fish from the wild. If an offshore aquaculture company wanted to do so, they would have to comply with existing fishery management laws and regulations governing the taking of fish from the wild.

Q. How will the farmed fish be distinguished from wild fish in the marketplace?

At the retail level, fish already need to be labeled as farmed or wild under another law, the Country of Origin Labeling Act (COOL). The 2007 National Offshore Aquaculture Act provides authority to require cultured fish or other marine species to be marked, tracked, or otherwise identified, using proven technology, record keeping, and enforcement methods. The specific requirements will be determined as part of the rulemaking process.

Seafood Demand and the Seafood Trade Deficit

Q. What is the likely future demand for seafood in the United States?

Assuming current per capita consumption of about 16 pounds per person per year and current projections for increases in population, the United States will need an additional two million metric tons per year by 2025. If we are to increase our seafood consumption to two meals per week, as Federal nutritionists recommend, the United States will need an additional four to six million metric tons per year over current levels.

Q. Why should the United States care about the seafood trade deficit?

The annual seafood trade deficit, which currently exceeds \$8 billion, is a major contributor to the overall U.S. trade deficit. Besides the economic implications in terms of the overall balance of trade, there are food security implications related to our dependence on imported seafood.